

### Desired Material Attributes

Lens Material	Lightweight = Low Density (g/cm3)	THIN - High Refractive Index	Good Optical Quality = High Abbe Number	Safety = High Impact Resistance
Glass	2.2 - 2.54	1.45 - 1.7	64 - 67 (best)	Low, unless thick (heavy)
PMMA (Acrylic)	1.19	1.491	57	Marginal
CR-39® or Hard Resin	1.32	1.498	58	Marginal
Polycarbonate	1.2	1.586	30- 34.5	High
Mid-index Plastics	1.2	1.52 - 1.56	35 - 43	Marginal
High Index Plastics	1.3 - 1.4	1.59 - 1.67 (best)	32-41	Marginal
Inventors' Modified Polymeric Material	1.11 (best)	1.53	45.5	High

Table 1

100

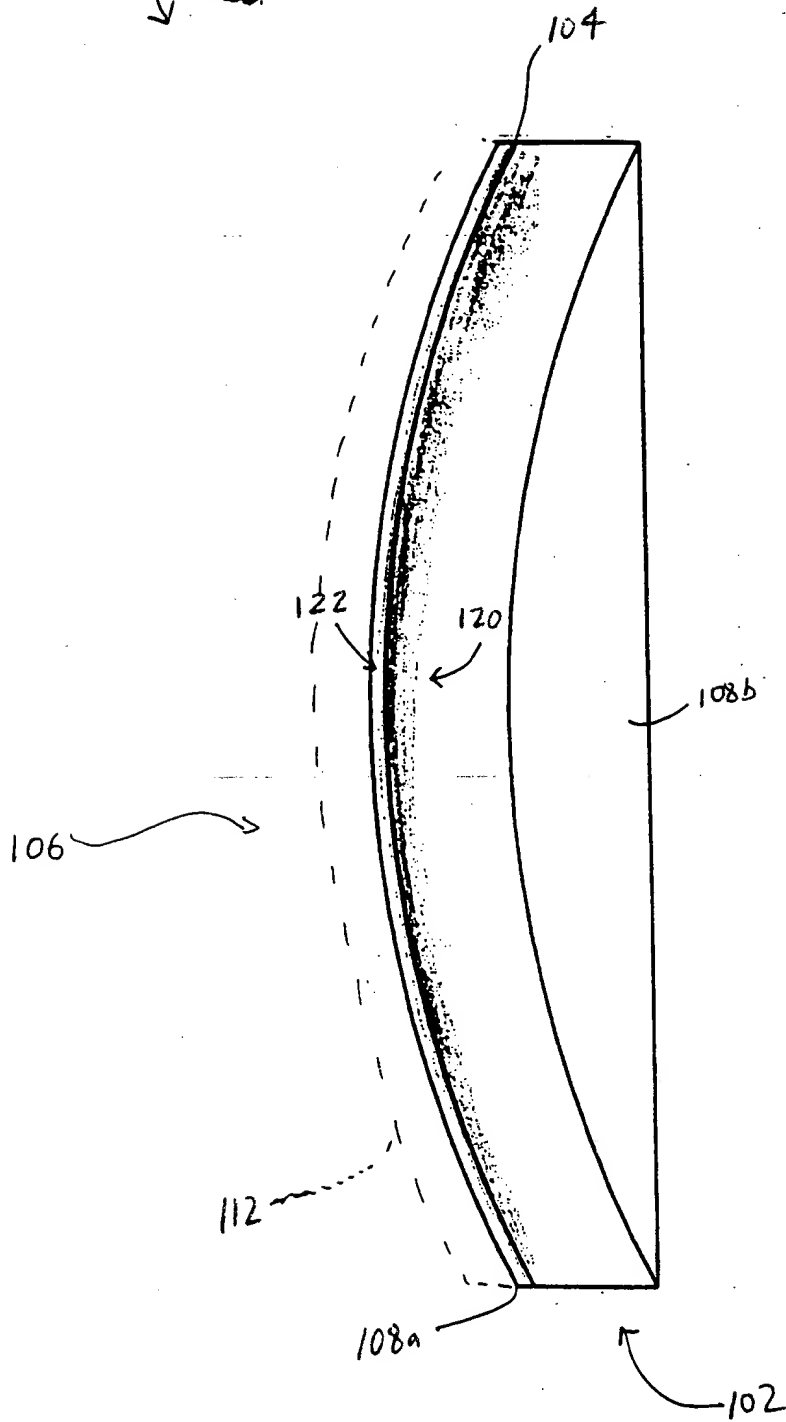


FIG. 1

00004735-031304

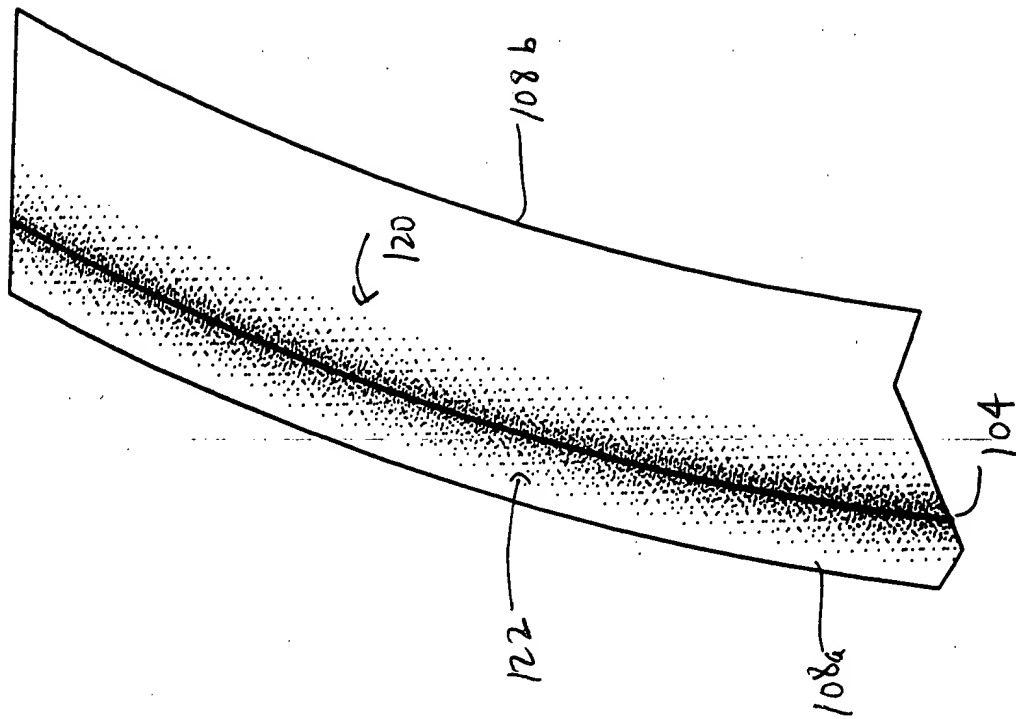


FIG. 2

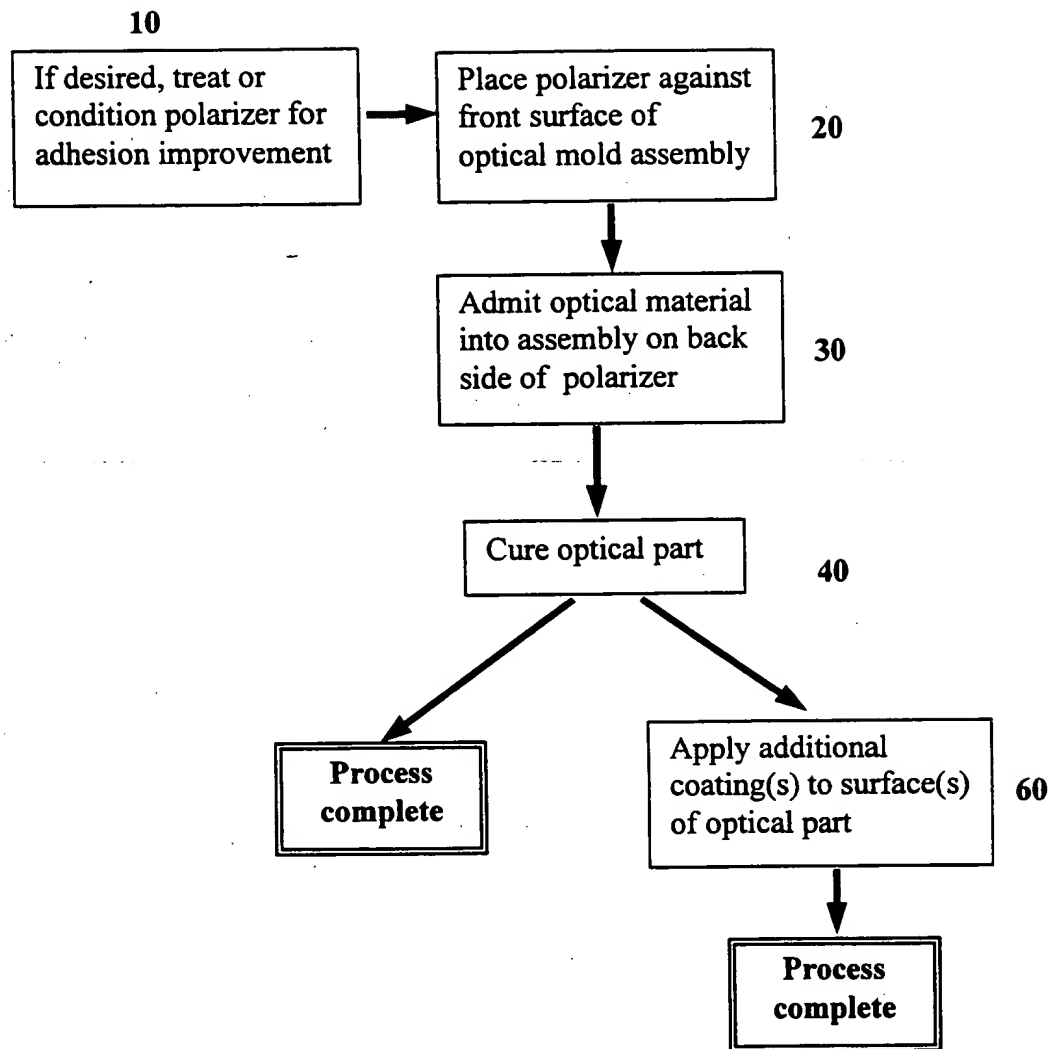


FIG. 3

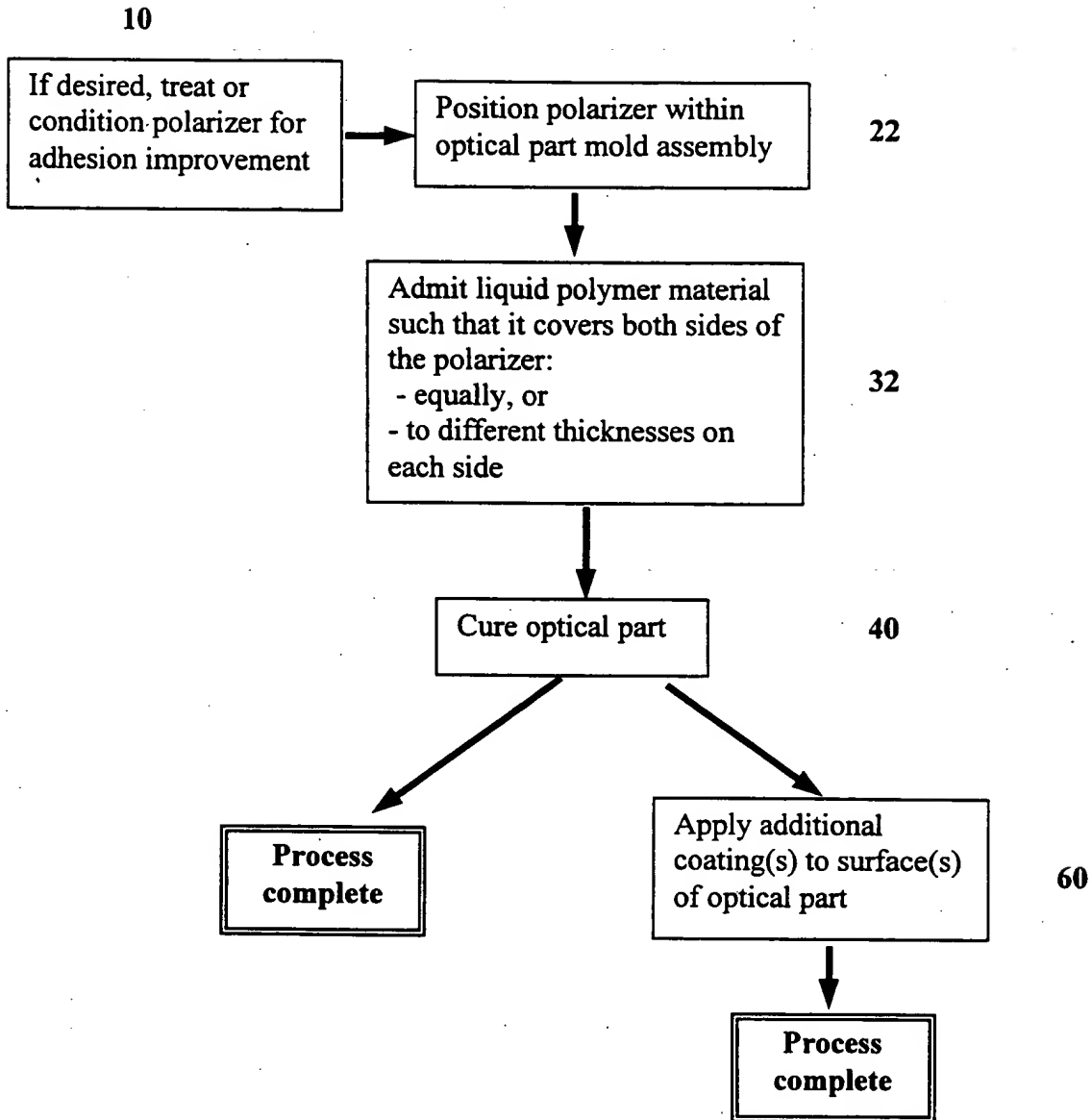


Fig. 4

10

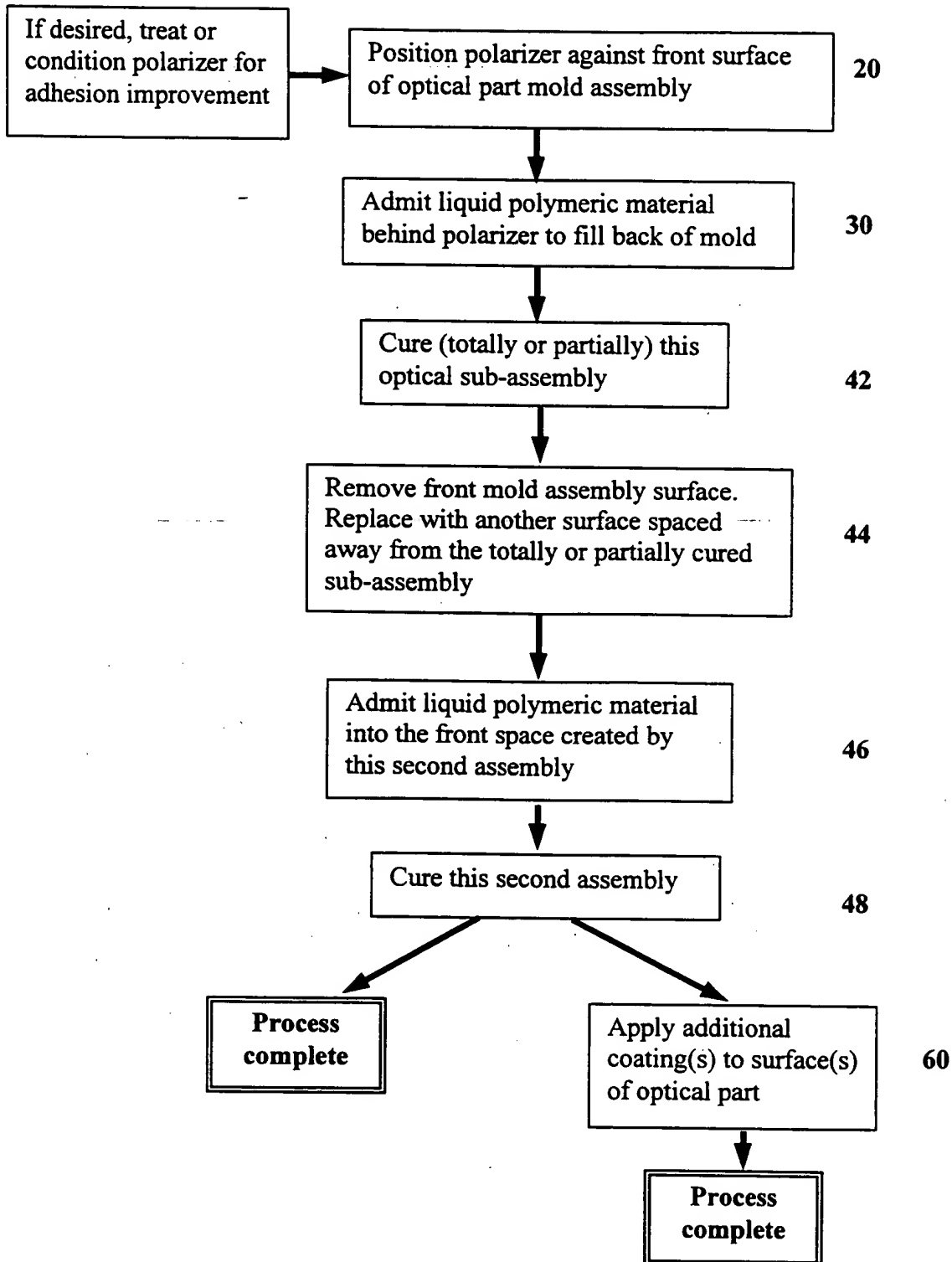


Fig. 5

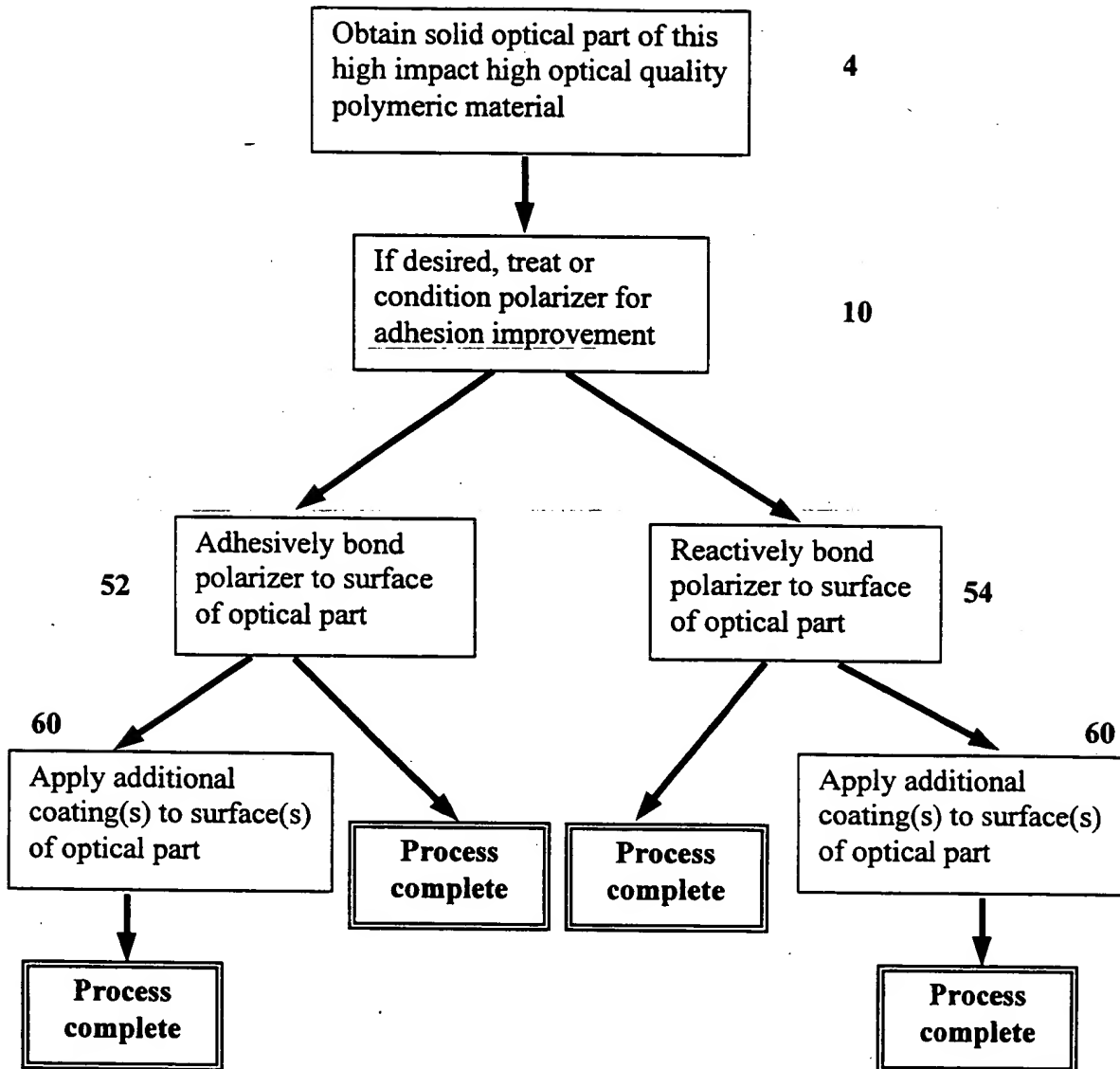


FIG. 6

FIG. 7

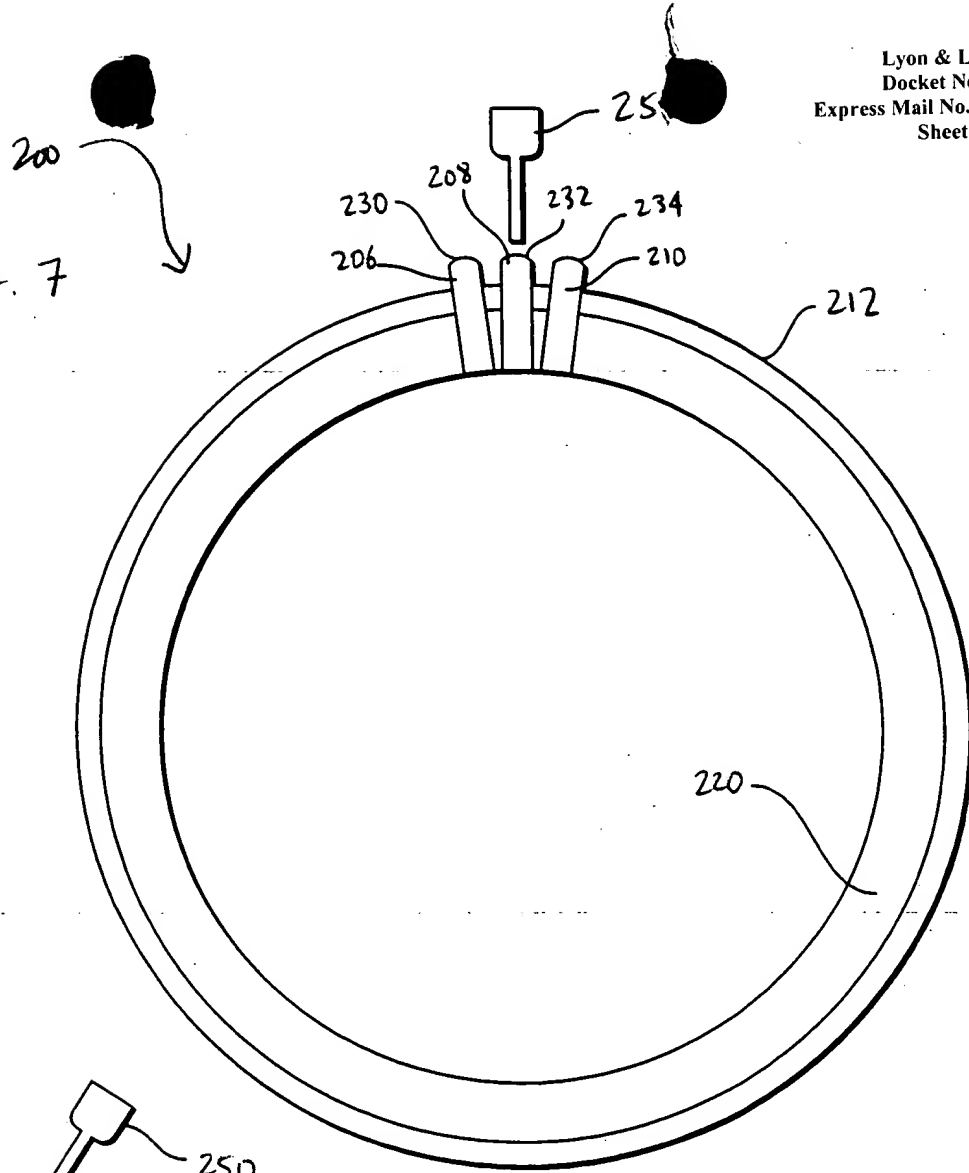
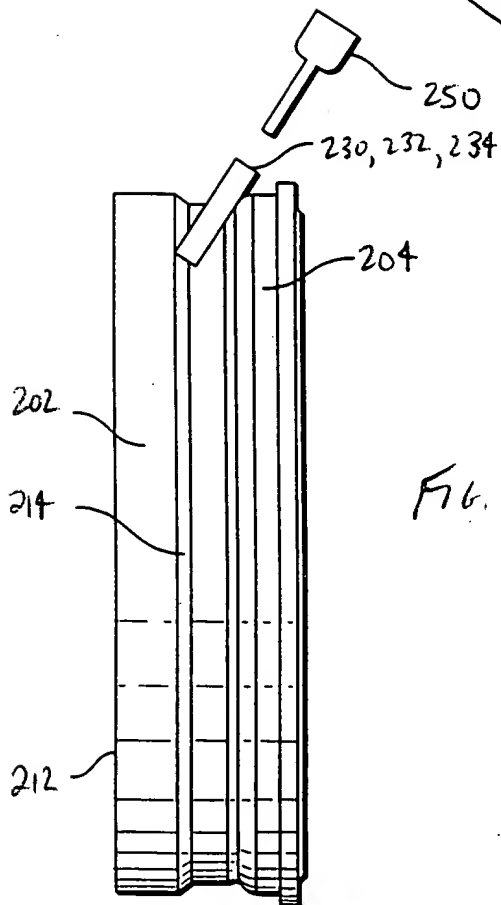


FIG. 8



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